



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/577,232	05/23/2000	Lundy Lewis	APB-022	3633
959	7590	01/15/2004	EXAMINER	
LAHIVE & COCKFIELD, LLP. 28 STATE STREET BOSTON, MA 02109			ENGLAND, DAVID E	
			ART UNIT	PAPER NUMBER
			2143	19

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/577,232

Applicant(s)

LEWIS, LUNDY

Examiner

David E. England

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1 – 3 and 6 – 24 are presented for examination.

#### ***Claim Objections***

1. Claims 1 – 3 and 14 – 16 are objected to because of the following informalities: The phrase, “parameters is”, is considered improper English and should be, “parameters are”.

Appropriate correction is required.

2. Claims 7 and 18 are objected to because of the following informalities: The phrase, “components is”, is considered improper English and should be, “components are”. Appropriate correction is required.

3. Claims 8 and 19 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Furthermore, it is not clearly stated what specifically the step is suppose to be doing.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 13 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation of "interfacing with another management platform" is not specifically found in the specification.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 8 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claims 8 and 19 recite the limitation "the step of determining interfaces". There is insufficient antecedent basis for this limitation in the claim.

### *Drawings*

9. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the interfacing with another management platform must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Art Unit: 2143

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

10. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the step of determining interfaces with the network component monitoring agent to provide service level management in the network must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

Art Unit: 2143

do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

12. Claims 1 – 9, 11 – 20 and 22 – 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Hunter U.S. Patent No. 6449603.

13. Referencing claim 1, Hunter teaches collecting data on component parameters for the one or more network components, each of the component parameters having a state, (e.g. col. 6, lines 28 – 65, “...*trained learning agents*...” & col. 7, line 60 – col. 8, line 48);

14. selecting one or more component parameters from the component parameters, (e.g. col. 6, lines 28 – 65, “...*evaluating the various fitness combinations extracted from the prediction methods*...” & col. 7, line 60 – col. 8, line 48);

15. declaring the selecting one or more component parameters a service parameter, each of the service parameters having a state representative of the service, (e.g. col. 6, lines 4 – 49, “...*and then matching them with the different learning agents*...” & col. 7, lines 22 – 37, “...*identifies combinations of the input*...”); and

16. determining how the one or more service parameters is influenced by the other component parameters to provide service level management in the network, (e.g. col. 8, lines 9 – 44, “... *and parameter values are crossed over* ...”).

Art Unit: 2143

17. Referencing claim 2, Hunter teaches the step of determining further comprises the step of, representing how the one or more service<sup>4</sup> parameters is influenced by the other component parameters in one or more of:

- 18. decision tree;
- 19. propositional statement;
- 20. quantified statement;
- 21. weighted listing;
- 22. graph, (e.g. col. 1, line 9 – col. 2, line 64 & col. 7, line 60 – col. 8, line 48).

23. As per claim 3, Hunter teaches the step of determining comprises one or more processes to determine how the one or more service parameters in influenced by the other component parameters to provide service level management including:

- 24. a data mining based process;
- 25. a neural network based process, (e.g. col. 1, line 9 – col. 2, line 64);
- 26. a machine learning based process, (e.g. col. 1, line 9 – col. 2, line 64);
- 27. an ID3 derivative (iterative dichotomizing third) based process;
- 28. an algorithm based process, (e.g. col. 1, line 9 – col. 2, line 64); and
- 29. a selected statistical based process, (e.g. col. 1, line 9 – col. 2, line 64).

30. As per claim 6, Hunter teaches the state representative of the service associated with the selected one or more parameters represents at least one of:

- 31. a response time of a network resource, (e.g. col. 6, line 50 – col. 7, line 20);

Art Unit: 2143

- 32. traffic congestion of a network resource;
  - 33. availability of a network resource;
  - 34. reliability of a network resource, (e.g. col. 6, line 14 – col. 7, line 20, “*fitness, training*”);
  - 35. security of a network resource;
  - 36. performance of a network resource, (e.g. col. 1, line 9 – col. 2, line 64 & col. 6, line 14 – col. 7, line 20, “*fitness, training*”); and
  - 37. configuration of a network resource, (e.g. col. 1, line 9 – col. 2, line 64 & col. 6, line 14 – col. 7, line 20).
38. Referencing claim 7, Hunter teaches the one or more network components is associated with a network component monitoring agent of a network management system, (e.g. col. 6, lines 28 – 45 & col. 8, lines 9 – 43).
39. Referencing claim 8, as interpreted by the Examiner, Hunter teaches the step of determining interfaces with the network component monitoring agent to provide service level management in the network, (e.g. col. 6, lines 28 – 45 & col. 8, lines 9 – 43).
40. Referencing claim 9, Hunter teaches a method of implementing service level management in a network having one or more network entities addressable by the network to manage a service associated with the network, the method comprising the steps of:



Art Unit: 2143

41. identifying a plurality of component parameters associated with the one or more network entities, (e.g. col. 6, lines 28 – 65, “...*trained learning agents*...” & col. 7, line 60 – col. 8, line 48);

42. designating one of the plurality of component parameters a service parameter, the service parameter providing an indication of a state of the service associated with the network, (e.g. col. 6, lines 4 – 49, “...*and then matching them with the different learning agents*...” & col. 7, lines 22 – 37, “...*identifies combinations of the input*...”); and

43. using the service parameter to implement service level management in the network to manage the service associated with the network, (e.g. col. 6, line 14 – col. 7, line 20, “...*evaluating the various fitness combinations extracted from the prediction methods*..., *fitness, training*”).

44. Referencing claim 11, Hunter teaches the step of managing the network based on the state of the service indicated by the service parameter, (e.g. col. 6, line 14 – col. 7, line 20, “*fitness, training*”).

45. Referencing claim 12, Hunter teaches the step of instructing the one or more network entities addressable by the network to take an action based on the state of the service indicated by the service parameter, (e.g. col. 6, line 14 – col. 7, line 20, “...*evaluating the various fitness combinations extracted from the prediction methods, fitness, training*”).

Art Unit: 2143

46. Referencing claim 13, as interpreted by the Examiner, Hunter teaches the step of interfacing with another management platform associated with the network to manage the service associated with the network, (e.g. col. 6, line 14 – col. 7, line 20, “*fitness, training*”).

47. Claims 14 – 20 and 22 – 24 are rejected for similar reasons as stated above.

***Claim Rejections - 35 USC § 103***

48. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

49. Claims 10 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter (6449603) in view of Adriaans et al. (6311175) (hereinafter Adriaans).

50. As per claim 10, Hunter teaches the use of parameters that have been process and selecting parameters randomly from a list and reusing parameters that have been utilized in algorithms, (e.g. col. 6, line 20 – col. 8, line 44), but does not specifically teach storing the plurality of component parameters associated with the one or more network entities in a storage device; and

51. taking an action using the stored component parameters to determine how the plurality of component parameters affect the service parameter to manage the service associated with the

Art Unit: 2143

network. Adriaans teaches storing the plurality of component parameters associated with the one or more network entities in a storage device, (e.g. col. 5, lines 1 – 47, “*database*” & col. 6, line 31 – col. 7, line 16); and

52. taking an action using the stored component parameters to determine how the plurality of component parameters affect the service parameter to manage the service associated with the network, (e.g. col. 5, lines 1 – 47, “*this information may them be used in a number of ways, including trend analysis, performance optimization, and monitor optimization.*” & col. 6, line 31 – col. 7, line 16). It would have been obvious to one of ordinary skill in the art at the time the invention was conceived to combine Adriaans with Hunter because saving parameters enables the system to access information to learn trends in a system and become more efficient in processing data. These learning techniques enable the management environment to better adapt itself to the system being managed. Accordingly, once additional information becomes available about the system, better management of the system environment is possible. Further information will then be collected and stored so that the learning process continues. In fact, the entire monitoring, learning, and adapting process provided by the system and method of the present invention is continuous and iterative.

53. Claim 21 is rejected for similar reasons as stated above.

***Response to Arguments***

54. Applicant's arguments with respect to claims 1 – 3 and 6 – 24 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

55. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

56. a. Maccabee et al. U.S. Patent No. 6108700 discloses Application end-to-end response time measurement and decomposition.

57. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2143

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. England whose telephone number is 703-305-5333. The examiner can normally be reached on Mon-Thur, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on 703-308-5221. The fax phone number for the organization where this application or proceeding is assigned is none.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is none.

David E. England  
Examiner  
Art Unit 2143

De 

  
DAVID WILEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100